


- NOTES:
1. THIS DEVICE IS INTENDED TO CONTROL SHEET FLOW ONLY. IT SHALL NOT BE USED IN AREAS OF CONCENTRATED FLOW.
 2. SILT FENCE ENDS ARE TO BE PLACED UPSLOPE TO CONTAIN RUNOFF.
 3. REINFORCING STRIP IS TO BE ONE COMPLETE STRIP EXTENDING 1/2" (13) ABOVE AND 1/2" (13) BELOW GEOTEXTILE FABRIC.

 DELAWARE DEPARTMENT OF TRANSPORTATION	SILT FENCE			APPROVED _____ CHIEF ENGINEER DATE
	STANDARD NO. E-2 (2006)	SHT. 1	OF 1	RECOMMENDED _____ DESIGN ENGINEER DATE

251501 - SILT FENCE

Description:

This work consists of furnishing, constructing, maintaining, and ultimately removing, and installing silt filter fences as a temporary measure to control sedimentation within the limits of construction. Silt fences shall be constructed as shown on the details in the Plans, at the locations shown on the Plans, and as directed by the Engineer.

Materials:

General. All materials shall be approved prior to use by the Department's Materials and Research Section.

Posts. Posts shall be constructed of oak timber or steel. Posts shall be a minimum of 36" long.

- (a) Oak Timber Posts. Oak timber posts shall be straight and have a minimum nominal cross-section of 2 by 2".
- (b) Steel Posts. Steel posts shall be 2 1/2" diameter Schedule 40 pipe or be standard steel "T" or "U" section of 1.3 lb/ft minimum.
- (c) Reinforcing Strip. Wooden lath, plastic strip or other approved equivalent

Fasteners and Attachment. Fasteners shall be either 5/8" long brass or copper staples, or 17 gage galvanized or aluminized steel tie wires long enough to securely attach the fabric to the posts.

The geotextile material shall be securely attached to the posts with staples, nails, ties or other appropriate means. In addition, all silt fence installations shall include a reinforcement strip or other means of reinforcing the attachment of the geotextile material to the post to prevent wind damage.

Wire Mesh. Wire mesh shall be galvanized welded wire reinforcement 6 by 6-W 1.4 by W 1.4 (152 by 152 - MW9 by MW9).

Seed. Seed shall conform to the requirements of Section 734.

Mulch. Mulch shall conform to the requirements of Section 735.

Geotextile. Geotextile shall conform to the requirements of Section 827. It shall be a minimum of 32" wide.

Prefabricated Silt Fence. The Contractor shall have an option to use prefabricated silt fence provided it has been constructed with the materials specified in this Section and approved by the

Engineer.

Construction Methods:

Construction of Silt Fence. The Contractor shall excavate the trench along the upstream side of the post line as shown on the details in the Plans. Posts shall be installed on the downstream edge of the trench, along the established fence line.

The geotextile shall be fastened to the upstream side of the posts. The geotextile roll ends shall be overlapped a minimum of 6" at post locations.

The geotextile shall be embedded in the excavated trench. The trench shall be backfilled and compacted over the geotextile to prevent water from flowing under the geotextile.

The silt fence shall not be constructed across a ditch, or swale, or area of concentrated flow. On slopes, the terminal ends of silt fence shall be turned upslope a sufficient distance to eliminate flow around the ends of the silt fence.

All geotextile damaged prior to installation, during installation, or during the life of the Contract shall be repaired or replaced to the satisfaction of the Engineer.

Maintenance of Silt Fence. Throughout the project construction period, the silt fence shall be maintained by removing trapped sediment, when it has reached 1/2 the exposed height of the fabric. The Contractor shall clean the geotextile of trapped sediment by tapping the geotextile when dry. No trash shall be allowed to accumulate to the height of the fence. Any geotextile that does not function due to clogging or deterioration shall be replaced.

Sediment Removal. After every heavy rainfall, the Contractor shall check for excessive buildups of sediment which must be removed so that the silt fence can continue to function as intended. Accumulated sediment shall be removed by the Contractor when it reaches 50% of the exposed height of the silt fence.

Removal of Silt Fence. The silt fence shall be removed when the Engineer determines that it is no longer required. The silt fence and all materials incidental to the silt fence construction shall be removed. All areas affected by the construction of the silt fence shall be restored to the original or plan contours and stabilized with seed and mulch.

Method of Measurement:

The quantity of silt fence will be measured as the actual number of linear feet of silt fence placed and accepted. The quantity of sediment removal will be measured according to Section 250.

Basis of Payment:

The quantity of silt fence will be paid for at the Contract unit price per linear foot for each type of fence. Price and payment will constitute full compensation for furnishing all materials; for excavating and backfilling associated with the construction of the silt fence; for maintaining the silt

fence during the Project construction period; for removing the silt fence with all related hardware after completion of the Project; for restoring the site; for seeding and mulching; and for all labor, equipment, tools and incidentals required to complete the work.

The quantity of sediment removal will be paid for according to Section 250.

No payment will be made for any replacement of or repairs to the silt fence damaged prior to installation, during installation, or during the life of the Contract. No payment will be made for the replacement of the silt fence or reinforced silt fence due to clogging or deterioration.

NE - 03/20/06